

## CLAIMS

Claims 1 through 4, 7 and 8, 13, 16 through 22 are cancelled.

5. (Withdrawn) The method of claim 4, wherein said monitoring comprises monitoring a change in temperature in the patient's arm.
6. (Withdrawn) The method of claim 5, wherein monitoring the change in temperature in the patient's arm is accomplished by placing at least two temperature sensors proximate the patient's forearm.
9. (Withdrawn) The method claim 1, wherein providing a vasodilating stimulant comprises occluding blood flow in the patient's leg.
10. (Withdrawn) A method for measuring endothelial function comprising:
  - a. providing a vasodilating stimulant to a patient to stimulate hemodynamic activity in a selected region of the patient's body;
  - b. monitoring a change in blood oxygen content at the selected region; and
  - c. assessing the patient's endothelial function based upon said monitoring.
11. (Withdrawn) The method of claim 10, wherein said monitoring is accomplished by taking measurements with a pulse oximeter.
- 12 (Withdrawn) The method of claim 11, wherein said pulse oximeter is placed proximate the tip of one of the patient's fingers.
14. (Withdrawn) The method of claim 13, wherein said monitoring is accomplished by taking measurements with a photoplethysmograph placed proximate one of the patient's fingers.
15. (Withdrawn) The method of claim 13, wherein said monitoring is accomplished by taking an ultrasound Doppler measurement.
23. (New) A method for assessing endothelial function, comprising:
  - a) recording a patient's temperature at location distal to a selected site of creating an arterial occlusion;
  - b) compressing for a given period of time the patient's artery to impede distal blood flow and thereby creating a vasodilating stimulant;
  - c) removing the compression and thereby allowing blood flow to resume;

- d) continuously recording the patient's temperature distal to the site of arterial occlusion; and
  - e) assessing the patient's endothelial function based on said recorded changes in temperature.
24. (New) The method of claim 23, wherein providing a vasodilating stimulant comprises occluding blood flow.
25. (New) The method of claim 23, wherein the patient's artery is the brachial artery.
26. (New) The method of claim 23, wherein said temperature recording further comprises monitoring a change in temperature at one of the patient's fingertips distal to the arterial occlusion.
27. (New) The method of claim 25, wherein the vasodilating stimulant comprises occluding blood flow in the patient's arm.
28. (New) The method of claim 23, wherein the compression of the patient's artery is located in an extremity of at least one of (i) a leg, (ii) an arm, (iii) a wrist, or (iv) a finger.
29. (New) The method of claim 23, wherein said monitoring occurs from a time prior to the beginning of said compression until a pre-determined time after said ceasing.